Name: Date:

Directions: Using Geogebra, create 7 different triangles. In the tables below, record the lengths of the sides. Then, find the sum of the two shortest sides.

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| --- | --- | --- | --- |
| Side a | Side b | Side c | Sum of Two shortest Sides |
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| --- | --- | --- | --- |
| Side a | Side b | Side c | Sum of Two shortest Sides |
|  |  |  |  |

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| --- | --- | --- | --- |
| Side a | Side b | Side c | Sum of Two shortest Sides |
|  |  |  |  |

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| --- | --- | --- | --- |
| Side a | Side b | Side c | Sum of Two shortest Sides |
|  |  |  |  |

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| --- | --- | --- | --- |
| Side a | Side b | Side c | Sum of Two shortest Sides |
|  |  |  |  |

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| --- | --- | --- | --- |
| Side a | Side b | Side c | Sum of Two shortest Sides |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Side a | Side b | Side c | Sum of Two shortest Sides |
|  |  |  |  |

\*Compare the sum of the two shortest sides to the length of the longest side. Make a hypothesis about what you think the relationship between the two is.

Fill in the tables for lengths of sides of triangles using your above hypothesis.

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| Side a | Side b | Side c  (Longest Side) | Sum of Two shortest Sides |
| 5cm | 10cm |  | 5+10 =15cm |

|  |  |  |  |
| --- | --- | --- | --- |
| Side a | Side b | Side c  (Longest Side) | Sum of Two shortest Sides |
| 7cm | 14cm |  | 7+14 = 21cm |

|  |  |  |  |
| --- | --- | --- | --- |
| Side a | Side b | Side c  (Longest Side) | Sum of Two shortest Sides |
| 2cm | 3cm |  | 2 + 3 = 5cm |

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| --- | --- | --- | --- |
| Side a | Side b | Side c  (Longest Side) | Sum of Two shortest Sides |
| 6cm | 8cm |  | 8+6 = 14cm |

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| --- | --- | --- | --- |
| Side a | Side b | Side c  (Longest Side) | Sum of Two shortest Sides |
| 4cm | 12cm |  | 4+12=16cm |